



ALBERTA FIELD CROP VARIETIES

As Recommended by
THE ALBERTA VARIETAL ZONATION COMMITTEE
/ 1945

Alberta Crop Improvement Association

This organization is composed of representatives of the Dominion and Provincial Governments, the University of Alberta, the Provincial Seed Growers' Associations and the Elevator Companies.

Its purpose is to co-ordinate the efforts of all concerned in maintaining, by seed distribution or other means, a high standard of purity, yield, and quality in crops produced in Alberta. Under this arrangement the Elevator Companies become distributors of registered and certified seed.

For prices, information on freight assistance, and general information regarding the ordering of seed see your local elevator agent.

Note: The Searle, Home and Midland Pacific Grain Companies do not operate under this scheme because they supply seed through their Crop Testing Plan.

The Alberta Varietal Zonation Committee

The purpose of this committee is to co-ordinate the findings of the various experimental agencies in the Province and to recommend to farmers the varieties which have proved to be best suited to the different zones in Alberta. These recommendations are revised annually, and established varieties are from time to time dropped when superseded by others which are proving more satisfactory. Notes are also given on introductions which show promise, but about which sufficient information to justify definite recommendations is not yet available.

The committee is composed of representatives of the following:

Department of Plant Science and Department of Soils, University of Alberta; Provincial Field Crops Branch; Provincial School of Agriculture; Dominion Experimental Farms Branch; Plant Products Division, Dominion Department of Agriculture; Dominion Laboratory of Plant Pathology, Edmonton.

VARIETAL ZONES

In order to give more specific recommendations on varieties the Province has been divided into zones in which growth conditions are relatively uniform. Such zones naturally merge into each other, and the boundaries as shown on the accompanying map indicate only general outlines. Growth conditions are not entirely uniform throughout any zone, and it is recognized that small areas exist in each where local conditions may make it profitable to produce a variety not recommended for the whole area. For these reasons, more than one variety is recommended for each zone.

ZONE 1: Comprises the bald prairie section of the Province where, except for irrigated districts, moisture is usually the limiting factor in crop production. This zone has a long frost-free period, and consequently medium late varieties are commonly grown. In the Cypress Hills area earlier varieties are advisable.

ZONE 2: This zone comprises the area of the Province lying immediately west and north of Zone 1. Here, climatic conditions are midway between those of Zone 1 and Zone 3. Precipitation is frequently a limiting factor in crop production.

ZONE 3: This zone comprises the parkland area of the Province. The soils, in general, have a fairly high organic matter content and moisture is not usually a serious limiting factor. Earlier varieties are recommended because the average frost-free period is shorter than in Zones 1 and 2.

ZONE 4: The remainder of the Province has been designated Zone 4. In general this zone has sufficient precipitation but has a shorter frost-free period. The soil, on the average, is of a lower level of fertility, but islands of soil similar to that in Zone 3 occur in this zone.

SPRING WHEAT

Recommended Varieties

Marquis, because of its milling and baking qualities, is used as the basis of the grain grades established under the Canada Grain Act. Its length of straw makes it suitable for growing in areas with limited precipitation. This variety may be grown in all districts where frost and rust are not limiting factors in production. It is recommended for Zones 1 and 2.

Canus is a bearded wheat, with a good length of straw and slightly later than Marquis. Where moisture is limited, Canus is one of the better varieties for Zones 1 and 2.

Red Bobs is a high yielding variety four or six days earlier than Marquis. It is an excellent milling and baking variety, though slightly lower than Marquis in protein content. It has a tendency to shatter when fully ripe, and on the wooded soils or under moist conditions produces starchy kernels. It is recommended for Zones 2, 3 and 4.

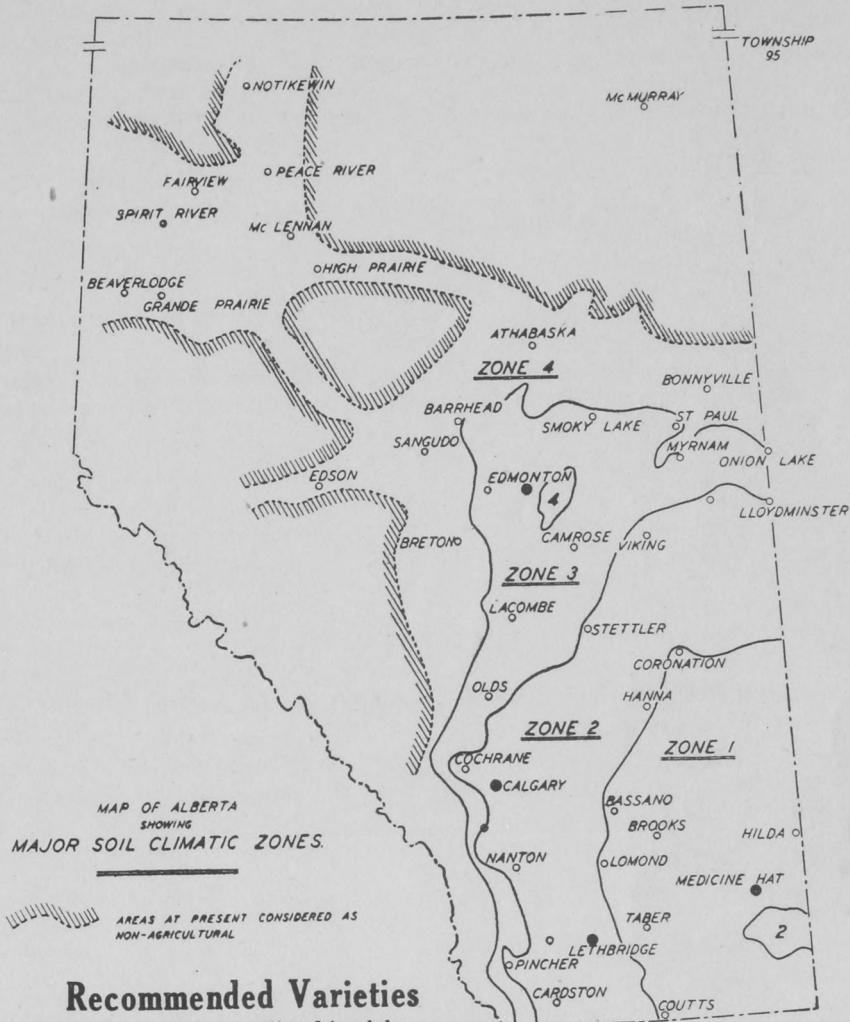
Thatcher is the only variety of wheat resistant to stem rust at present recommended for Alberta. It is a high quality, high yielding variety about as early as Red Bobs. The kernel often has a lustreless appearance, but this does not affect its milling and baking qualities. The straw is strong but shorter than Marquis. Thatcher is recommended for all zones.

Other Varieties

Regent is a strong strawed, early maturing variety which may have a place in heavy soil areas of Zones 2 and 3, where these characteristics are advantageous. While it is one or two days earlier than Red Bobs and Thatcher it does not yield quite so well. It is resistant to stem and leaf rust and does not shatter readily.

WINTER WHEAT

Kharkov M.C. 22, because of its winter hardiness and strength of straw, is the variety of winter wheat recommended for use in Alberta in all areas where winter wheat is grown.



Recommended Varieties

(The varieties are listed in alphabetical order, not according to merit or desirability.)

SPRING WHEAT

Zone 1—Canus, Marquis, Thatcher.

Zone 2—Canus, Marquis, Red Bobs, Thatcher.

Zone 3—Red Bobs, Thatcher.

Zone 4—Red Bobs, Thatcher.

WINTER WHEAT—Kharkov in all areas where winter wheat is grown.

OATS

Zone 1—Eagle, Victory.

Zone 2—Eagle, Legacy, Victory.

Zone 3—Eagle, Legacy, Victory.

Zone 4—Banner, Legacy, Victory.

FLAX

Zone 1—Bison, Royal.

Zone 2—Bison, Redwing, Royal.

Zones 3 and 4—Redwing.

MALTING BARLEY

O.A.C. 21 in all zones.

Olli in Zones 3 and 4.

FEED BARLEY

Zone 1—Newal, Sanalta, Trebi.

Irrigated Areas—Newal, Olli, Sanalta, Trebi.

Zone 2—Newal, Olli
(in northern districts).

Zone 3 and 4—Newal, Olli.

OATS

Recommended Varieties

Victory and **Banner** are both high yielding, medium late varieties.

Eagle is a medium late variety similar to Victory but is stronger and usually shorter in the straw. It is recommended for Zones 1, 2, and 3 because of its strong straw.

Legacy, recommended for Zones 2, 3 and 4, is about a week earlier than Victory or Banner but is slightly lower in yield, particularly in dry seasons. Although a good feed oat, it has a long, lean kernel.

Other Varieties

Ajax is an early variety resistant to stem rust. Results to date indicate that it yields well compared with other early varieties.

Exeter is a medium late variety maturing at about the same time as Victory and Banner. Results to date indicate a high yielding capacity. Its straw is no stronger than that of Victory.

HULLESS OATS

Laurel is perhaps the variety best known in Alberta. However, its low yield and susceptibility to smut have limited its use. **Brighton**, a new variety developed at the Central Experimental Farm, Ottawa, yields better than Laurel and is resistant to smut.

BARLEY

Recommended Malting Varieties

Worign fed barley-1

O.A.C. 21 is the standard commercial malting barley in Canada. It yields moderately well, though the heads break off rather readily when ripe. While it makes an excellent feed, it does not yield as well as the approved feed barleys. It is recommended for all zones.

Olli is a very early variety with short strong straw. Its early maturity makes it very useful in districts subject to frost and as a cleaning crop. It tends to have smaller kernels than O.A.C. 21. It is recommended for Zones 3 and 4.

Recommended Feed Varieties

Newal is a smooth-awned, high yielding feed barley recommended for all zones. The straw is strong and of medium height and makes excellent feed. It is susceptible to loose smut but in spite of this outyields the other commonly grown varieties.

Olli, as well as being recommended as a malting variety in Zones 3 and 4, is, because of its earliness and usefulness as a cleaning crop, also recommended as a feed barley in the northern part of Zone 2 and in Zones 3 and 4.

Sanalta is a two-rowed, smooth-awned variety. It is high yielding, does not shatter readily, nor do the heads break off easily. It is, however, about a week later than Newal. It is recommended for parts of Zones 1 and 2.

Trebi is the highest yielding of the six-rowed, rough-awned varieties. It has short straw of medium strength and ripens a little later than O.A.C. 21. It is recommended particularly in the irrigated areas of Zones 1 and 2 because of its high yield. It has a heavy hull and flinty texture and is therefore hard to grind.

Other Varieties

Titan is a very strong strawed, smooth-awned, smut resistant feed barley developed at the University of Alberta. Some seed will be available commercially in 1946.

FLAX

Recommended Varieties

Bison is a fairly good yielding, wilt resistant variety recommended for Zones 1 and 2.

Redwing is four or five days earlier maturing than Bison, is strong strawed, wilt resistant, and has a smaller kernel than Bison. It yields well and is recommended for the northern part of Zone 2 and for Zones 3 and 4.

Royal is a variety with slightly smaller seed than Bison, somewhat higher in yield but slightly later, and definitely weaker in the straw. It is fairly resistant to wilt and possesses some resistance to rust. It is recommended for Zone 1 and the parts of Zone 2 having the longest growing season.

CROPS OF SECONDARY IMPORTANCE

Rye

Dakold (fall) and **Prolific** (spring) are varieties recommended for use in Alberta where it is desired to grow this crop.

Field Corn

This crop has been grown chiefly in the southern sections of Zones 1 and 2. The recommended Flint varieties are the yellow variety, **Gehu**, and **Mixed Flint**, which mature at the same time; and **Manalta**, an earlier variety adapted to more northerly districts of Zones 1 and 2. Dent varieties recommended are **Minnesota No. 13**, a yellow variety, and **Northwestern Dent** (Lethbridge strain) which is red.

Corn seed produced in Alberta from selected strains is most suitable for planting in Alberta.

Field Peas

Commercially acceptable varieties

Alaska is a very early, smooth, green, boiling pea, which is sometimes used as a garden and canning variety. It is, however, quite low in yield.

Japanese Sweet Wrinkled is a high quality, sweet, boiling pea commonly grown under irrigation. This variety is worthy of trial farther north.

Early Blue is a very short vined, smooth, green, early maturing, usually acceptable, boiling pea of medium size. **Idabel** is a smooth, green pea somewhat larger than Early Blue and later maturing. **Chancellor (Dashaway)** and **Golden Vine** are smooth, small, yellow peas which mature at about the same time as Idabel. They meet the demands of the split pea trade or may be grown for feed. With the exception of Japanese Sweet Wrinkled the above varieties have been grown in all zones.

Soybeans

Early varieties of soybeans have possibilities in southern Alberta, particularly on irrigated land. Yellow-seeded varieties produce a clear oil and are preferred by the trade. Two of these are **Kabott** and **Pagoda**. Pagoda is ten days earlier but lower yielding than Kabott.

Shell or Dry Beans

Shell beans are a specialized crop requiring a long, hot growing season. The white variety, **Burbank**, is a high quality small baking bean. **Great Northern**, another white baking bean, is larger, later, but higher yielding. **Norwegian Brown** is the earliest recommended variety suitable for home use. **Hidatsa**, a red chilli bean, is an earlier higher yielding variety than **Red Mexican**, which is a similar type.